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### Preternatural

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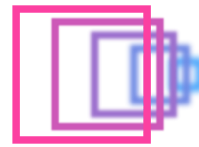
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Experiential AI

# Preternatural

An exhibition of works by Jake Elwes



Curatorial Statement  
Drew Hemment  
2 August 2019

## Preternatural – An exhibition of works by Jake Elwes

The preternatural is that which exists outside of nature, and exceeds what is natural or regular.<sup>1</sup> It is the extraordinary, and inexplicable by ordinary means.

Jake Elwes<sup>2</sup> is an artist who works with machine learning algorithms. He is one of a number of artists who are today exploring the aesthetics of machine learning. Works in this tradition often reveal and manifest distortions in the ways algorithms interpret the world.

For Preternatural, Experiential AI at Edinburgh Futures Institute present two works by Elwes. A new commission, Zizi, receives its world premiere, alongside a new adaptation for Edinburgh of Closed Loop. Each work, in different ways, explores how machine reasoning and vision exist outside of nature, and exceed what is natural or regular.

Zizi is a procession of faces of drag artists in constant transition, morphing and changing shape. Their gender, sexuality, whether they are real or artificial, is all uncertain.

Drag is a celebration of gendered and sexual otherness. Its loud, bold and beautiful. Above all, it is a space of fluidity, ambiguity and transition.

Machine learning algorithms make distinctions based on biases and weightings in a training dataset. They can also predict features to generate new instances.

Zizi tackles head-on the lack of representation in training datasets. Elwes has taken an existing model trained using a standardised dataset, and retrained it on faces of drag performers and gender fluidity.

Zizi is generated by a duel between two 'adversarial' networks competing with one another in a machine learning system called a Generative Adversarial Network (GAN). One generates new images that could pass as real, the second attempts to discriminate real images from fakes. This creates a feedback loop that generates ever more realistic images.

The 'faces' are nonetheless synthetic. They are simulacra, they are no longer copies of images in the training dataset, but products of the AI system.

Drag is similarly a duel of a kind. It is a play between convention and transgression. Drag artists often magnify stereotypes and accentuate difference to the point at which the cocoon shatters and a butterfly emerges.

Giffney (2004) defines queer as a "site of permanent becoming." Zizi makes this aspect of drag explicit, through autonomously generated faces that are fluid and never still. Here, the permanent becoming of a GAN represents the fluidity, ambiguity and transition of drag artists.

In Zizi, we see both drag and GANs as a play between identity and difference. In both we see that truth and identity are not stable, but are a constellation of multiple and unstable positions.

In Closed Loop, the second work in the show, two AI models are again in dialogue. Here Elwes sets up a duel of another kind, between a Recurrent Neural Network and a Generative Neural Network. One describes

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<sup>1</sup> Merriam-Webster, 2019 <https://www.merriam-webster.com/dictionary/preternatural>

<sup>2</sup> [www.jakeelwes.com](http://www.jakeelwes.com)

in words the images generated by the other, which, in turn, generates another image to represent those words. Departures occur as the algorithms see new things in the nuance of the words and image and generate new representations of those things.

In the adaption for Edinburgh, a sequence of these images and captions scroll across a series of seven screens. Each instance has an uncanny beauty, and the pleasure in the work is observing the correspondence and departures. An image of "a man looking at the camera" is described as "the shadow of the dog", which is in turn represented by an image of "a bird in the air".

Here, Closed Loop illustrates the way AI systems fit phenomena into categories, and the difficulty they have in handling ambiguity. When confronted with the nuance in the words and images, the algorithm elides that difference and assigns a new category.

The two works in the show are different, and yet also have much in common. Both works present machine learning systems as a site of permanent becoming. After Barad we might say machine learning creates both a new objective reality and an intelligibility in the world.

For Elwes, and other artists working with machine learning algorithms, the interest is rarely in optimising prediction accuracy. Instead it is in the mistakes, and the poetry that can result.

The hand of the artist lies in curating the training data and tweaking the weights in the models. Closed Loop appears to be about autonomy of two models conversing. In fact, here the artist is the 'ghost worker'.

Much of what we see in Closed Loop is more a happy accident in machine aesthetics than representative of deep network structures. Nonetheless, we see here something to complement our understanding of the statistical models. This is the protonatural surface effects of those underlying structures, which we encounter as poetic, troubling and extraordinary.

The face is crucial for human identity, and a crucial unit of observation in data systems, from social media ('Facebook') and the digitisation of identity in surveillance systems ('facial recognition'). Such works enable us to see our own self becoming a data point in surveillance capitalism as something uncanny and strange.

Zizi is a celebration of difference. It invites us to reflect on bias in society today, whether as something harmful or to be celebrated. Sites of marginality and transgression can challenge the structures of domination in society. This we learn from queer theory and postcolonial theory alike. In the ever changing faces of drag artists we again see a production of difference.

AI forces us to confront the biases in society today. Zizi reminds us that norms, attitudes and beliefs are not static organizing categories but are forever in play. At a time when there is a particular need to confront harmful bias with urgency, this is an empowering reminder that this is always contingent and can be contested.

If AI holds a mirror up to society, then Zizi applies the makeup.

Preternatural is curated by Drew Hemment as a part of Experiential AI at Edinburgh Futures Institute. It is presented at a newly launched site, Inspace City Screen, and is a part of Data Play by Design Informatics.

Zizi and Closed Loop are shown on alternate nights, 9pm-4am, 2-26 August 2019.

Zizi: Saturdays, Wednesdays. Closed Loop: Fridays, Mondays.